Amendments to the Claims

1. (currently amended) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising two or more of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level; and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer, wherein the polymer is a block polymer and the regions are blocks and wherein there is no cross-linking functionality on the polymer.

2. (previously presented) An organic polymer according to claim 1, wherein the first region comprises a first monomer comprising a substituted or unsubstituted aromatic or heteroaromatic group.

3. (previously presented) An organic polymer according to claim 2, wherein the first monomer comprises a substituted or unsubstituted fluorene group.

4. (previously presented) An organic polymer according to claim 3, wherein the first monomer comprises a 2,7- linked dialkyl fluorene group.

5. (previously presented) An organic polymer according to claim 4, wherein the 2,7-linked dialkyl fluorene group is a 9,9 dioctyl fluorene group.

6. (previously presented) An organic polymer according to claim 1, wherein the second region comprises a second monomer comprising a substituted or unsubstituted aromatic or heteroaromatic group.

7. (currently amended) An organic polymer according to claim 6, wherein the second monomer comprises a triarylamine unit having the general formula -[$(Ar)_3N$]- wherein each Ar is the same or different and comprises a substituted or unsubstituted aromatic or heteroaromatic group.

8. (currently amended) An organic polymer according to claim ~~6~~ 7, wherein at least one Ar comprises a substituted or unsubstituted phenyl group.

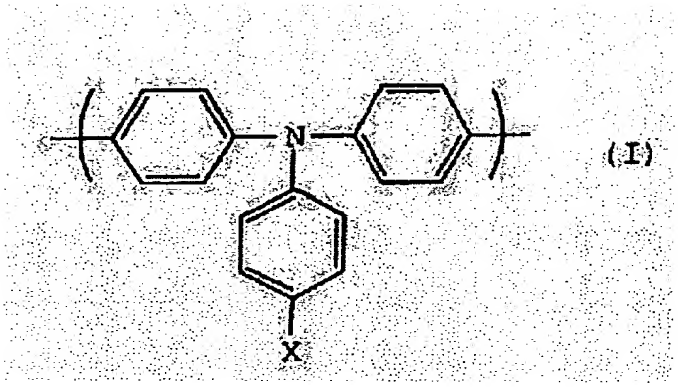
9. (previously presented) An organic polymer according to claim 7, wherein at least one Ar comprises a substituted or unsubstituted aromatic or heteroaromatic side group that is pendent to the polymer backbone.

10. (previously presented) An organic polymer according to claim 9, wherein the side group comprises a substituted or unsubstituted aryl group.

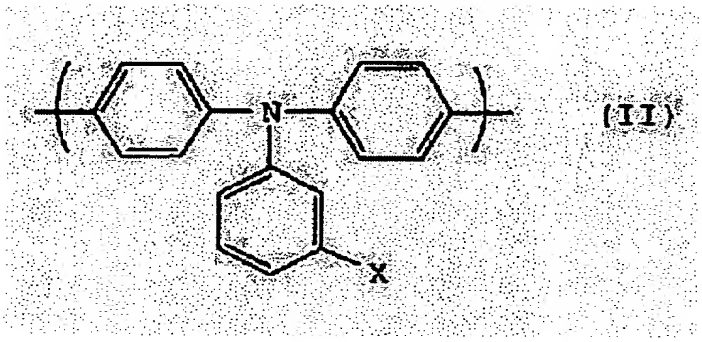
11. (previously presented) An organic polymer according to claim 10, wherein the side group comprises an unsubstituted phenyl or a monosubstituted or 3,5-disubstituted phenyl group.

12. (previously presented) An organic polymer according to claim 9, wherein the side group has a substituent group comprising a substituted or unsubstituted alkyl, perfluoroalkyl, alkylaryl, arylalkyl, heteroaryl, aryl, alkoxy, thioalkyl or cyano group.

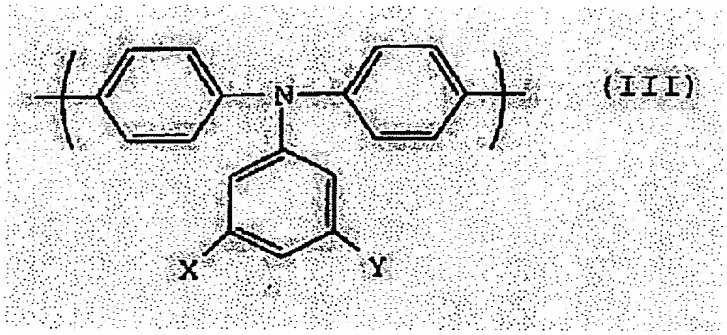
13. (currently amended) An organic polymer according to claim 6 ~~7~~, wherein the second monomer comprises a triarylamine unit ~~comprises a group~~ having a formula as shown in any one of Formulas I, II, ~~or~~ III, IV, V, or VI:



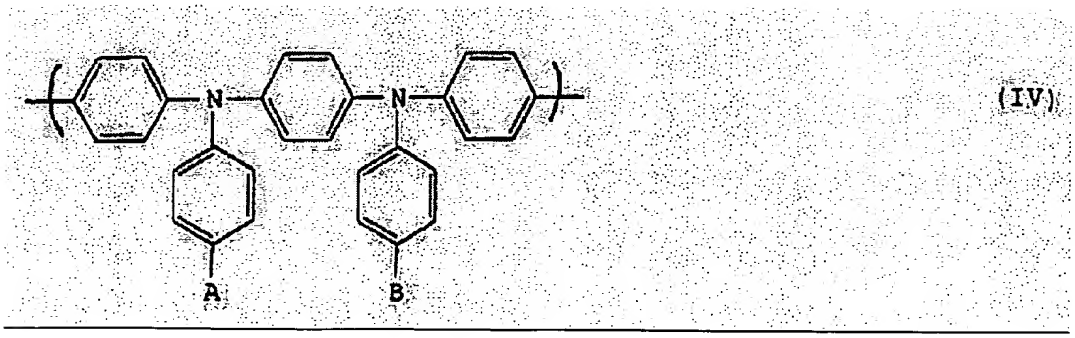
(I)



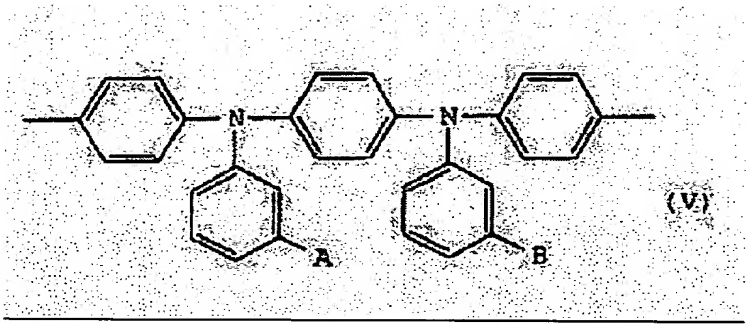
(II)

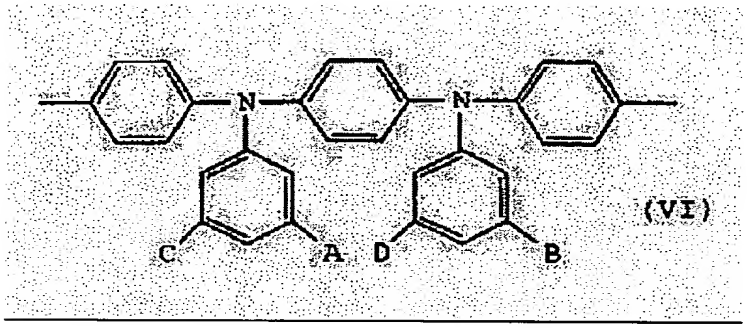


(III)



(IV)





where X, ~~and~~ Y, A, B, C, and D are the same or different and are substituent groups.

14. (cancelled).

15. (previously presented) An organic polymer according to claim 13, wherein one or more of X, Y, A, B, C and D is independently selected from the group consisting of hydrogen, alkyl, aryl, perfluoroalkyl, thioalkyl, cyano, alkoxy, heteroaryl, alkylaryl, and arylalkyl groups.

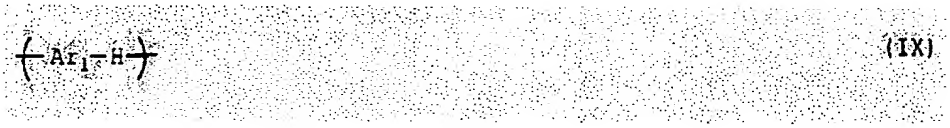
16. (currently amended) An organic polymer according to claim 15, wherein one or more of X, Y, A, B, C and D is independently selected from the group consisting of an unsubstituted, isobutyl group, an n-alkyl, an n-alkoxy or a trifluoromethyl group.

17. (previously presented) An organic polymer according to claim 15, wherein X and Y or A, B, C and D are the same.

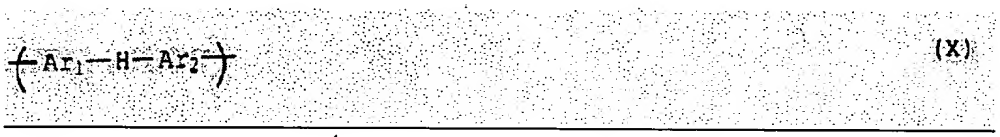
18. (previously presented) An organic polymer according to claim 1, wherein the third region comprises a third monomer comprising a substituted or unsubstituted aromatic or heteroaromatic group.

19. (previously presented) An organic polymer according to claim 18, wherein the third monomer comprises a group H which is an aromatic or heteroaromatic diazine group fused to a benzene or thiophene group.

20. (currently amended) An organic polymer according to claim 19, wherein the third monomer comprises a group having a formula as shown in Formula IX or X:



(IX)



(X)

wherein Ar_1 and Ar_2 are independently ~~is~~ a substituted or unsubstituted aromatic or heteroaromatic group.

21. (cancelled).

22. (previously presented) An organic polymer according to claim 20, wherein Ar_1 or Ar_2 independently comprises a substituted or unsubstituted, fused or unfused benzene, thiophene, furan, quinoxaline, biphenyl or fluorene group.

23. (currently amended) An organic polymer according to claim 19 wherein the third monomer comprises a group having a formula as shown in Formula VIII or XI:

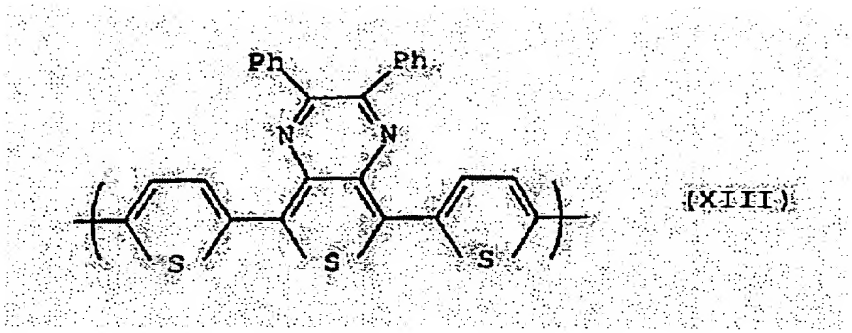
wherein X' is RC=CR or S and R_1 and R_2 or R_3 and R_4 are the same or different and are each a substituent group.

24. (cancelled).

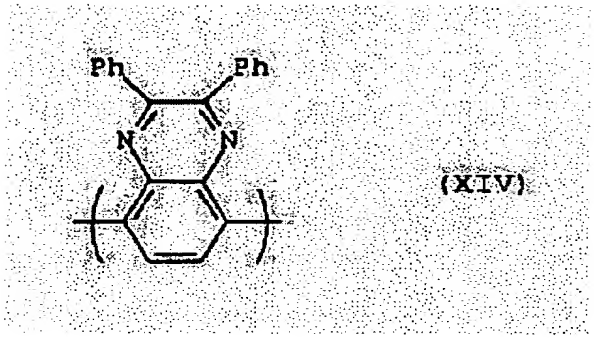
25. (previously presented) An organic polymer according to claim 23, wherein one or more of R_1 , R_2, R_3 and R_4 is each independently selected from hydrogen, alkyl, aryl, perfluoroalkyl, thioalkyl, cyano, alkoxy, heteroaryl, alkylaryl, arylalkyl, pyridine or furan.

26. (previously presented) An organic polymer according to claim 25, wherein R_1 and R_2 or R_3 and R_4 are the same and are each a phenyl group.

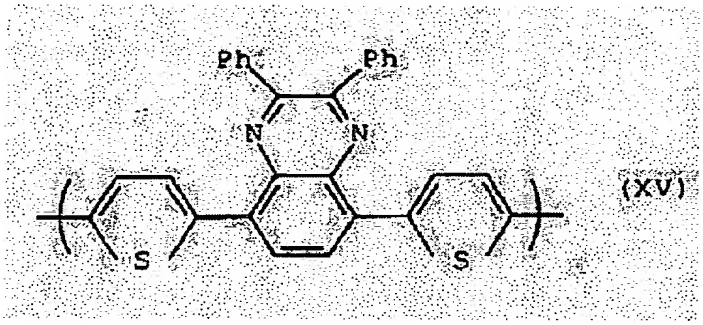
27. (currently amended) An organic polymer according to claim 19 ~~23~~, wherein the third monomer comprises a group having a formula as shown in any one of Formulas XIII to XVII:



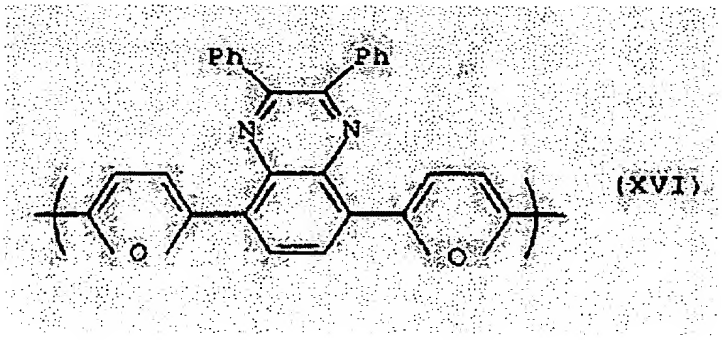
(XIII)



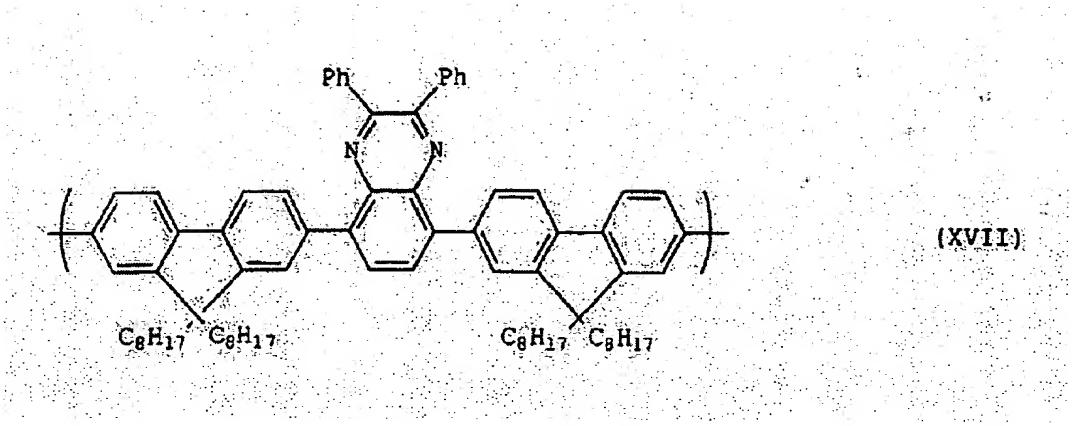
(XIV)



(XV)

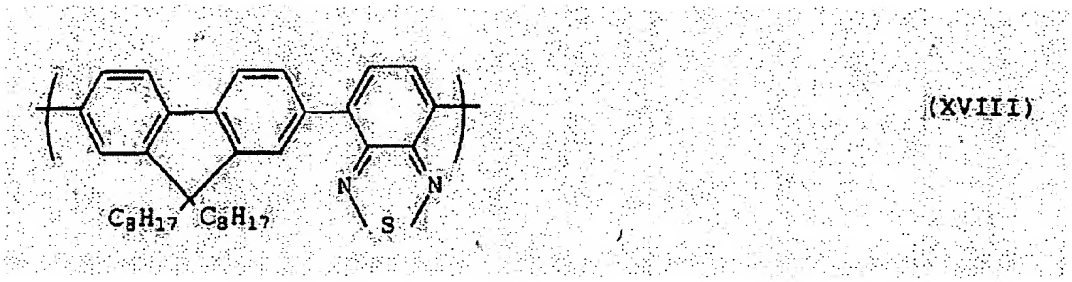


(XVI)

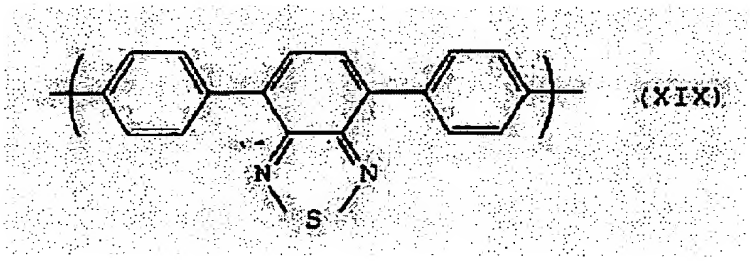


(XVII)

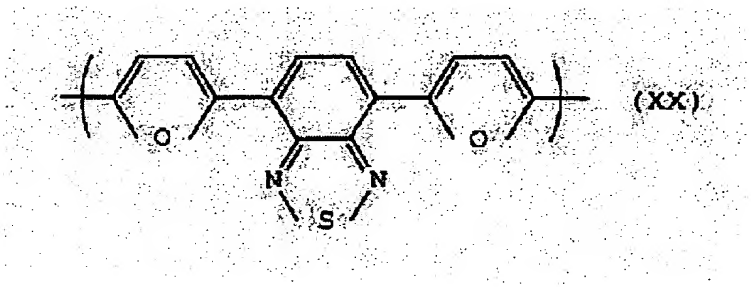
28. (currently amended) An organic polymer according to claim 19~~23~~, wherein the third monomer comprises a group having a formula as shown in any one of Formulas XVIII to XXVI:



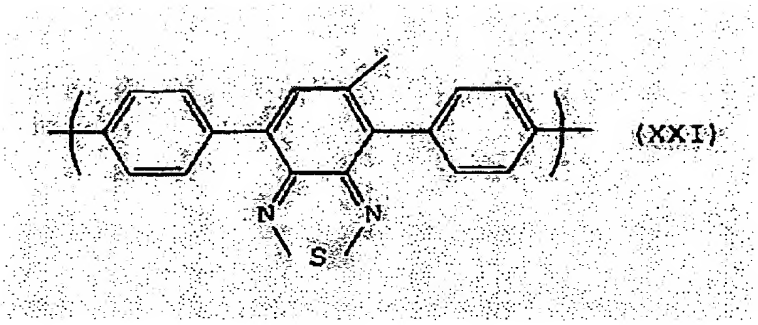
(XVIII)



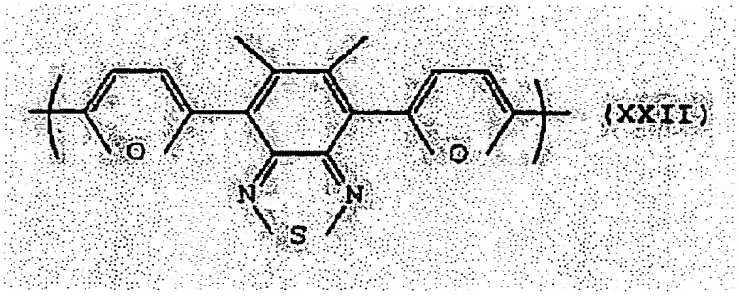
(XIX)



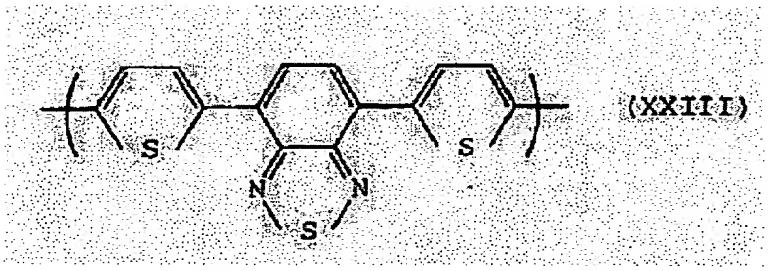
(XX)



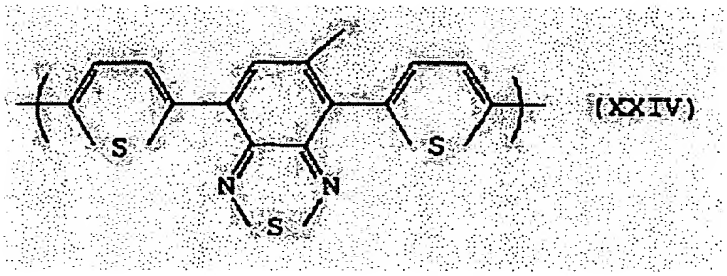
(XXI)



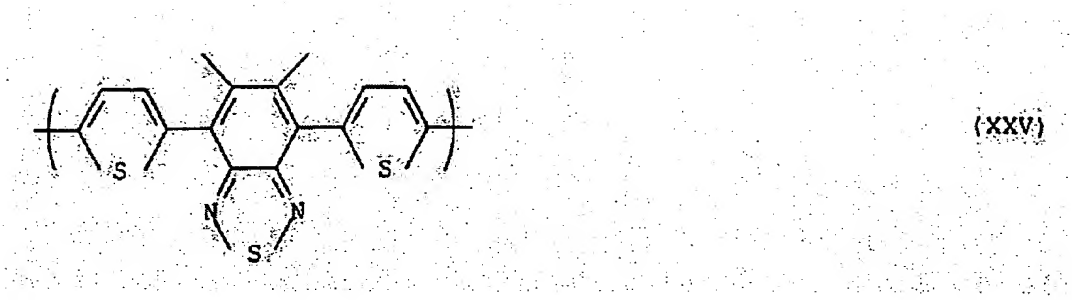
(XXII)



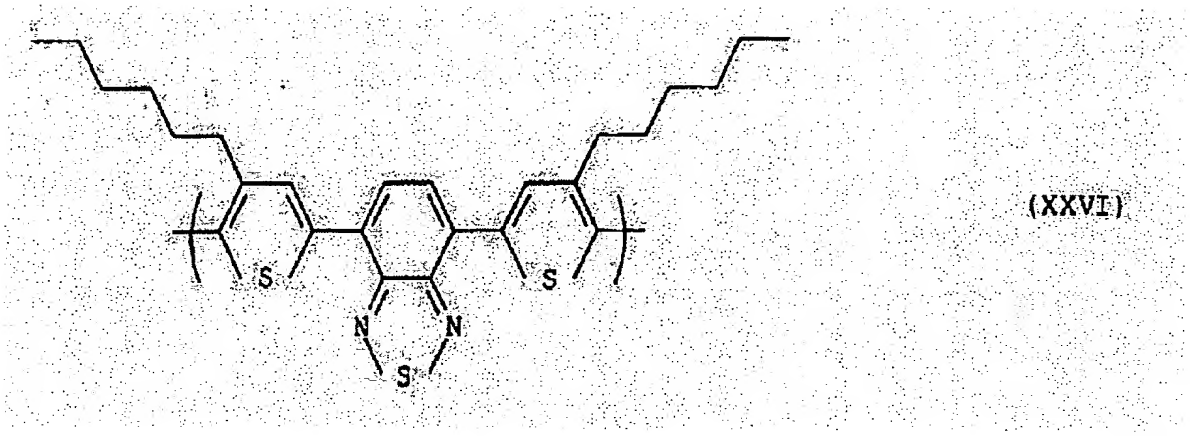
(XXIII)



(XXIV)



(XXV)



(XXVI)

29. (previously presented) An organic polymer according to claim 18, wherein the third monomer comprises a triarylamine unit.

30. (currently amended) An organic polymer according to claim 29, wherein the third monomer comprises a group having the formula -[(-$(Ar)_2$N-)-Ar-(-N$(Ar)_2$-)]-, wherein each Ar is the same or different and comprises a substituted or unsubstituted aromatic or heteroaromatic group.

31. (previously presented) An organic polymer according to claim 30, wherein at least one Ar comprises a substituted or unsubstituted aryl group.

32. (previously presented) An organic polymer according to claim 31, wherein the at least one Ar comprises an unsubstituted phenyl group.

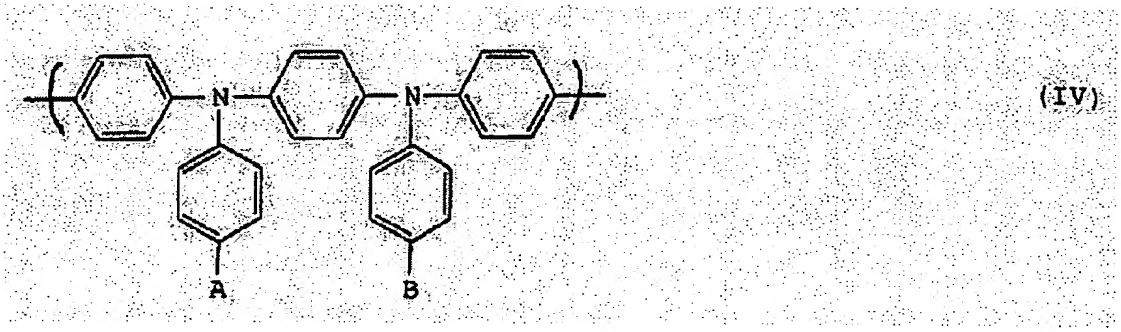
33. (previously presented) An organic polymer according to claim 30, wherein at least one Ar comprises a substituted or unsubstituted aromatic or heteroaromatic side group that is pendent to the polymer backbone.

34. (previously presented) An organic polymer according to claim 33, wherein the side group comprises fused or unfused benzene, thiophene, furan, quinoxaline, biphenyl or fluorene group.

35. (previously presented) An organic polymer according to claim 34, wherein the side group comprises a monosubstituted phenyl group.

36. (previously presented) An organic polymer according to claim 33, wherein the side group has a substituent group comprising hydrogen or a substituted or unsubstituted alkyl, perfluoroalkyl, alkylaryl, arylalkyl, heteroaryl, aryl, alkoxy, thioalkyl or cyano group.

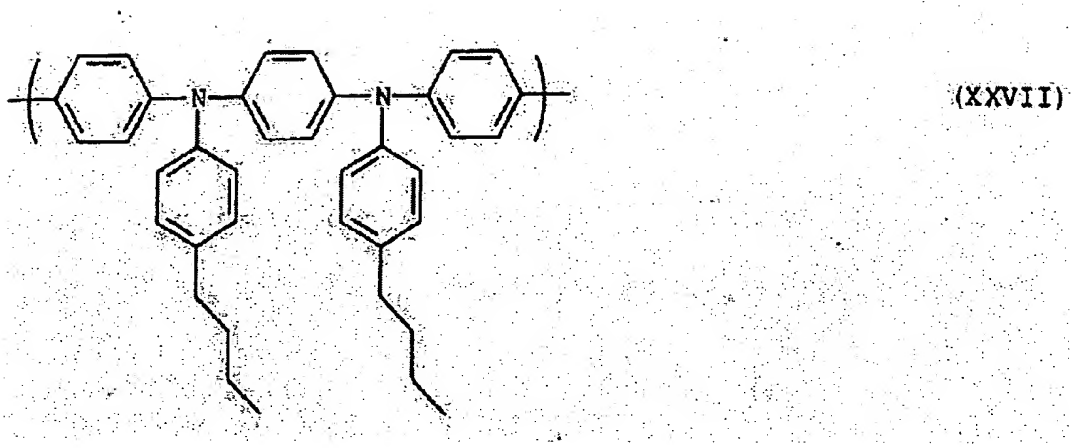
37. (previously presented) An organic polymer according to claim 35, wherein the triarylamine unit comprises a group having a formula as shown in Formula IV



(IV)

wherein A and B are the same or different and are substituent groups.

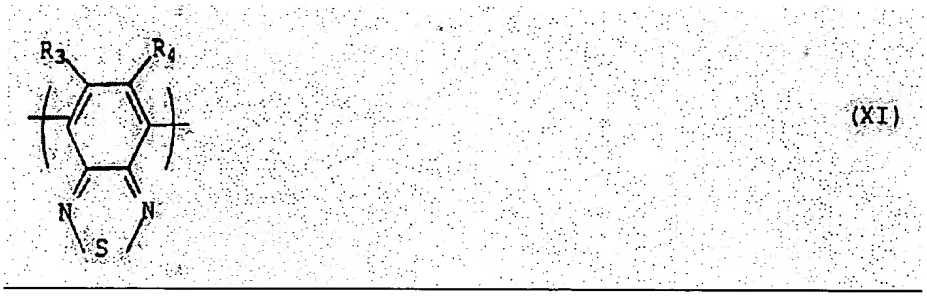
38. (previously presented) An organic polymer according to claim 37, wherein the third monomer comprises a group having a formula as shown in Formula XXVII:



(XXVII)

39. (previously presented) An organic polymer according to claim 1, wherein the first region additionally comprises a fourth monomer comprising a further substituted or unsubstituted aromatic or heteroaromatic group.

40. (currently amended) An organic polymer according to claim 39 wherein the further substituted or unsubstituted aromatic or heteroaromatic group comprises a group as shown in formula XI



(XI)

wherein R_3 and R_4 are both hydrogen.

41. (currently amended) An organic polymer according to claim 6, wherein the second region additionally comprises a fifth monomer ~~comprising a further second monomer as defined in claim 6~~, which is different from the second monomer.

42. (currently amended) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising all three of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

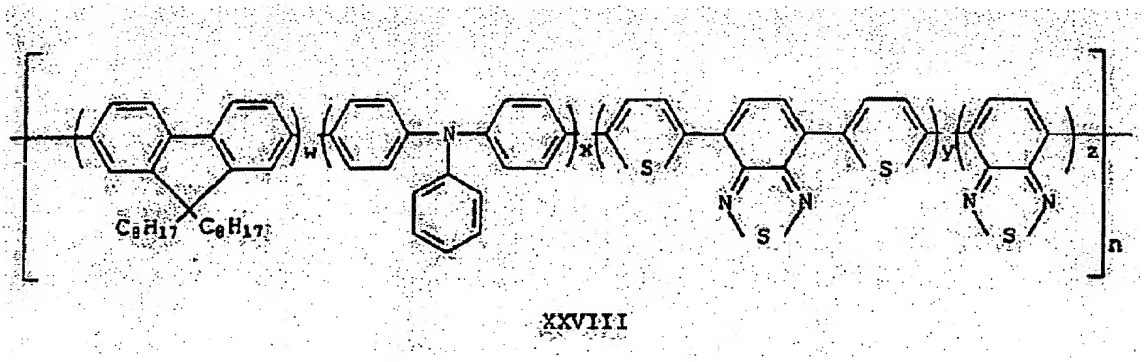
(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer wherein the polymer is a block copolymer and each region is a block.

43. (previously presented) An organic polymer according to claim 42, wherein the third region is in a layer between the anode and the cathode and when a voltage is applied emits light with a wavelength in the range 600 nm to 700 nm.

44. (currently amended) An organic polymer according to claim 42, having a formula as shown in Formula XXVIII:

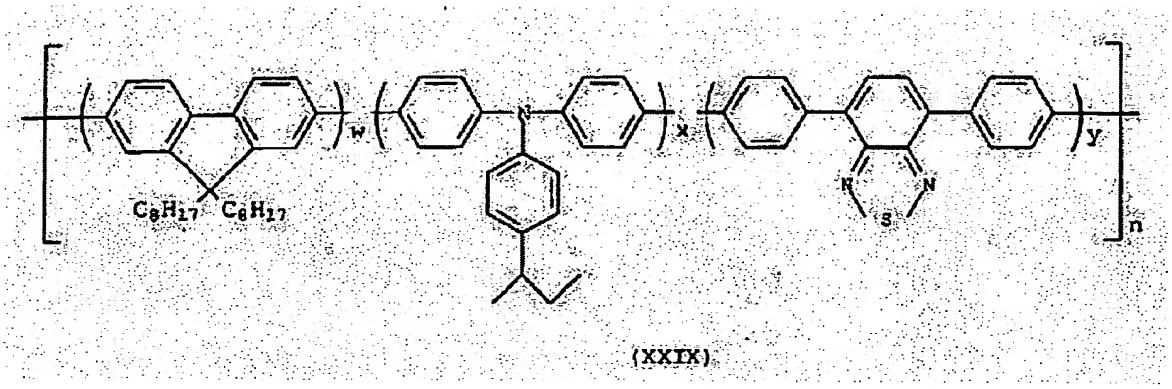


XXVIII

wherein w + x + y + z = 1, w ≥0.5, ~~0 ≤x + y + z ≤0.5 and n ≥z~~ 0<(x+y+z) ≤0.5 and n ≥2.

45. (previously presented) An organic polymer according to claim 42, wherein the third light having a wavelength in the range 500 nm to 600 nm

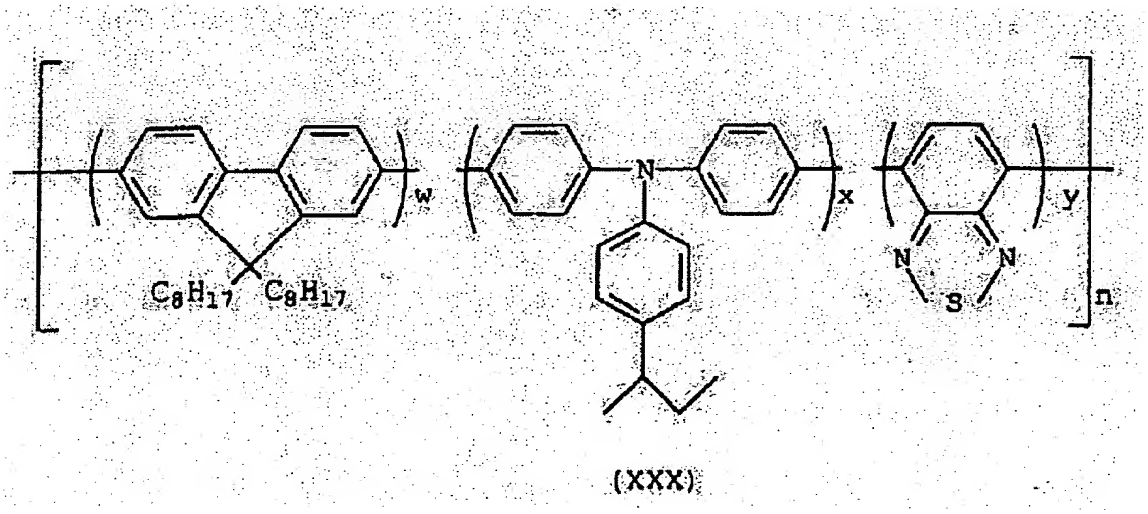
46. (currently amended) An organic polymer according to claim 42, having a formula as shown in Formula XXIX:



(XXIX)

wherein w + x + y = 1, w ≥0.5, ~~0 ≤x + y ≤0.5~~ 0< (x+y) ≤0.5 and n ≥2.

47. (currently amended) An organic polymer according to claim 42, having a formula as shown in Formula XXX:

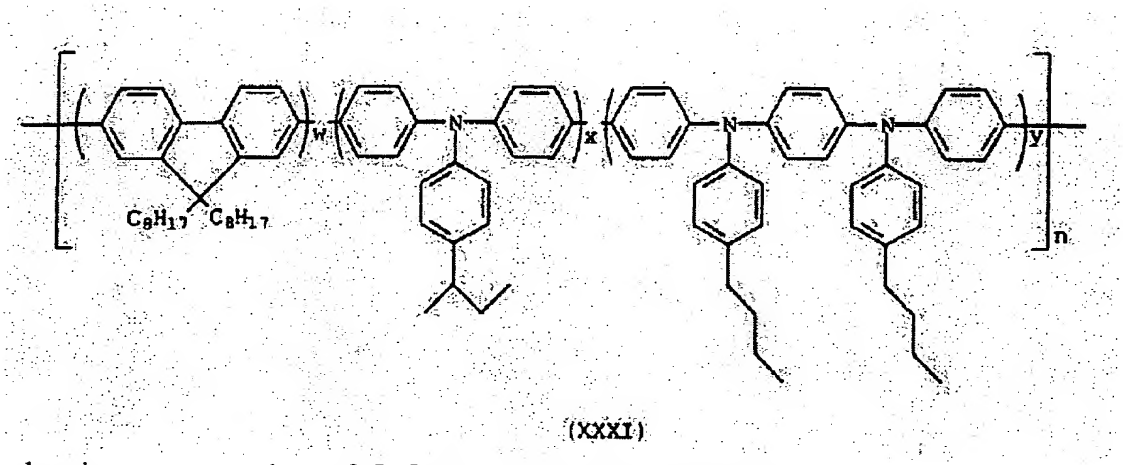


(XXX)

wherein w + x + y = 1, w ≥0.5, 0< (x+y) ≤0.5 ~~0 ≤x + y ≤0.5~~ and n ≥2.

48. (previously presented) An organic polymer according to claim 42, wherein the third monomer is in a layer between the anode and the cathode and when a voltage is applied emits light having a wavelength in the range of 400 nm to 500 nm.

49. (currently amended) An organic polymer according to claim 1 ~~51~~, having a formula as shown in Formula XXXI:



(XXXI)

wherein w+ x + y = 1, w ≥0.5, ~~0 ≤x + y ≤0.5~~ 0<(x+y) ≤0.5 and n ≥2.

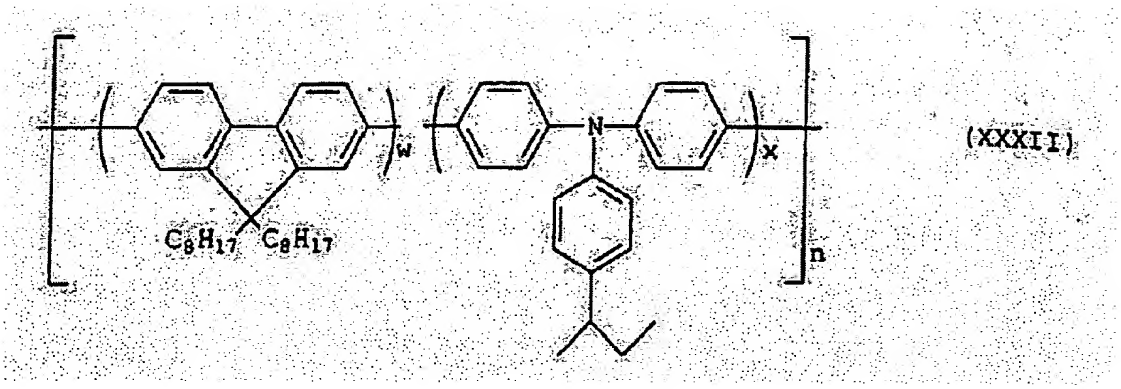
50. (currently amended) An organic polymer according to claim 1, comprising:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level; and

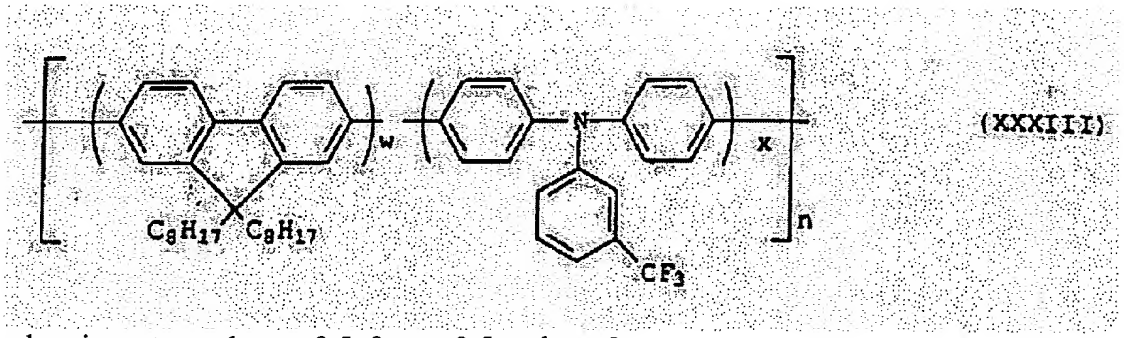
(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level;

and wherein each region comprises one or more monomers and the quantity and arrangement of the monomers within the organic polymer is selected so that the first and second bandgaps are distinct from one another in the polymer.

51. (currently amended) An organic polymer according to claim 50, having a formula as shown in Formula XXXII or XXXIII:



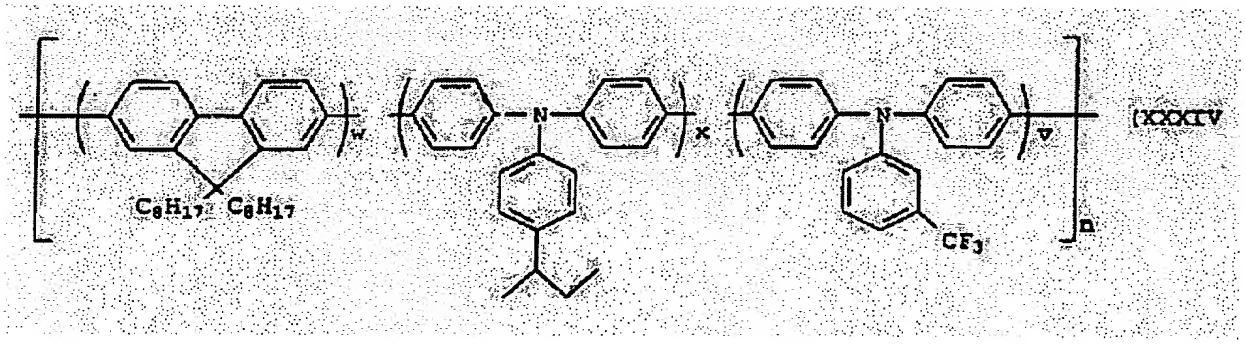
(XXXII)



(XXXIII)

wherein w + x = 1, w ≥0.5, 0≤x ≤0.5 and n ≥2.

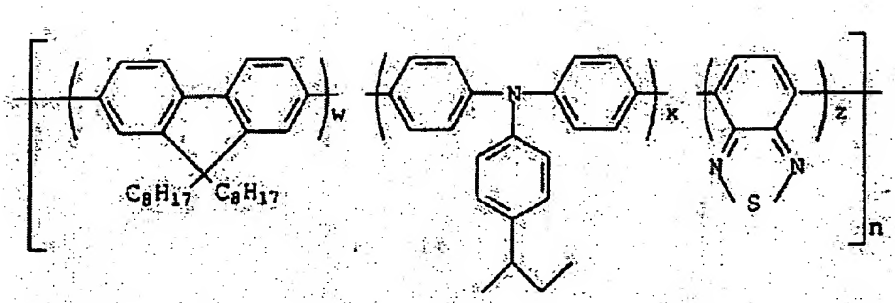
52. (currently amended) An organic polymer according to claim 50, having a formula as shown in Formula XXXIV:



(XXXIV

wherein w + x + v = 1, w ≥0.5, 0 < (x+v) ≤0.5 ~~0 ≤x + v ≤0.5~~ and n ≥2.

53. (currently amended) An organic polymer according to claim 50, having a formula as shown in Formula XXXV:



(XXXV)

wherein w + x + z = 1, w ≥0.5, 0< (x+z) ≤0.5 ~~0 ≤x + z ≤0.5~~ and n ≥2.

54. (previously presented) An organic polymer according to claim 50, which is blended with a light emissive material.

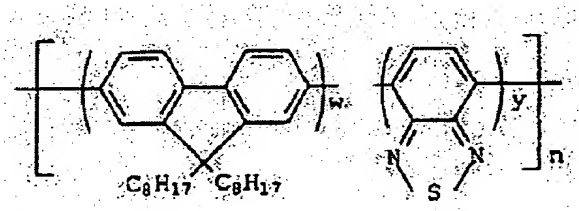
55. (previously presented) An organic polymer according to claim 1, comprising:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level: and

(ii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first and third bandgaps are distinct from one another in the polymer.

56. (currently amended) An organic polymer according to claim 55, having a formula as shown in Formula XXXVI



(XXXVI)

wherein w + y = 1, w ≥0.5 and 0<y ≤0.5 ~~y ≤0.5~~ and n ≥2.

57. (previously presented) An organic polymer according to claim 55, which is blended with a hole transporting material.

58. (previously presented) An organic polymer according to claim 57, wherein the hole transporting material comprises a poly-triarylamine.

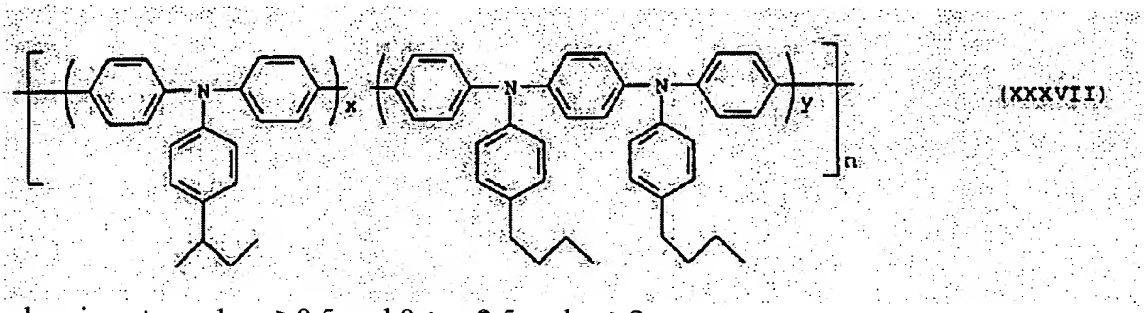
59. (previously presented) An organic polymer according to claim 1, comprising:

(i) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(ii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the second and third bandgaps are distinct from one another in the polymer.

60. (currently amended) An organic polymer according to claim 59, having a formula as shown in Formula XXXVII:



(XXXVII)

wherein $x + y = 1$, $x \geq 0.5$ and $0 \leq y \leq 0.5$ and $n \geq 2$.

61. (previously presented) An organic polymer according to claim 59 which is blended with an electron transporting material.

62. (previously presented) An organic polymer according to claim 61, wherein the electron transporting material comprises poly-fluorene.

63. (previously presented) An optical device including a polymer according to claim 1.

64. (previously presented) The optical device according to claim 63, wherein the optical device comprises an electroluminescent device.

65. (previously presented) An electroluminescent device comprising an anode layer, a cathode layer and a layer of a polymer according to claim 1 situated between the anode layer and the cathode layter.

66. -116. (cancelled).

117. (previously presented) An electroluminescent device comprising an anode layer, a cathode layer, and a layer of an organic polymer situated between the anode layer and the cathode layer, the organic polymer having a plurality of regions along the length of the polymer backbone and comprising two or more of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level; and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level, wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer, and wherein the device includes an emissive material which may or may not be the third region, and the first LUMO level lies

between a work function of the cathode and a LUMO level of the emissive material or which is matched to the LUMO level of the emissive material, and the second HOMO level lies between a work function of the anode and a HOMO level of the emissive material or which is matched to the HOMO level of the emissive material.

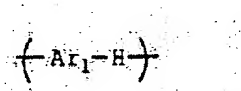
118. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising two or more of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level; and

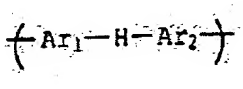
(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer, wherein there is no cross-linking functionality on the polymer and wherein the third region comprises a group having the formula as shown in Formula IX or X:



(IX)



(X)

where Ar_1 and Ar_2 independently comprise a substituted or unsubstituted, fused or unfused, benzene, thiophene, furan, quinoxaline, biphenyl of fluorene group.

119. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising two or more of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and a first HOMO level; and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

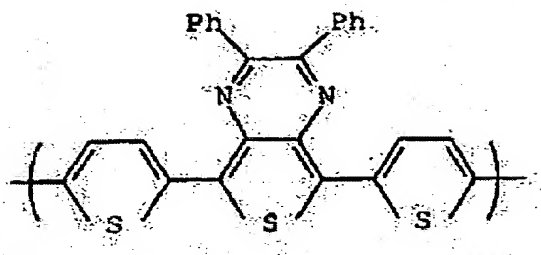
(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer, wherein there is no cross-linking functionality on the polymer and wherein the third region comprises a group having the formula as shown in Formula VIII or XI:

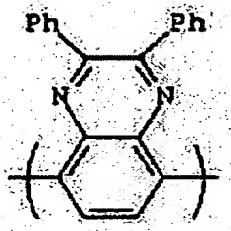
wherein X' is RC=CR or S and R_1 and R_2 are independently selected from hydrogen, alkyl, aryl, perfluoroalkyl, thioalkyl, cyano, alkoxy, heteroaryl, alkylaryl arylakyl, pyridine or furan and R_3 and R_4 are independently selected from alkyl, aryl, perfluoroalkyl, thioalkyl, cyano, alkoxy, heteroaryl, alkylaryl arylakyl, pyridine or furan.

120. (new) The organic polymer of claim 119 wherein R_1, R_2, R_3, and R_4 are each a phenyl group.

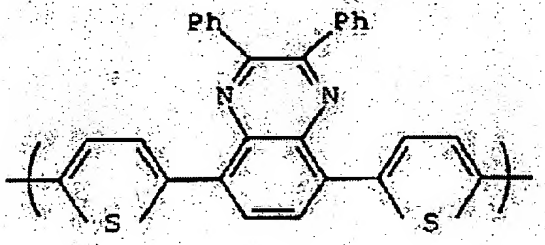
121. (new) The organic polymer of claim 119 wherein the third region comprises a group having the formula as shown in any one of Formulas XIII to XXVI:



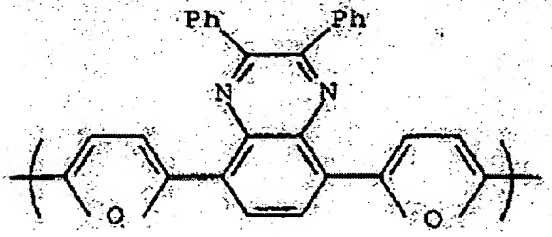
(XIII)



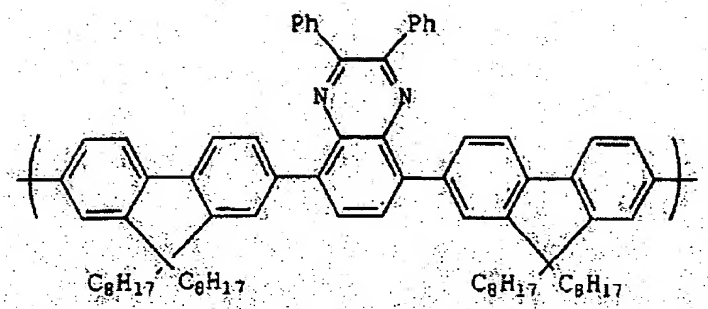
(XIV)



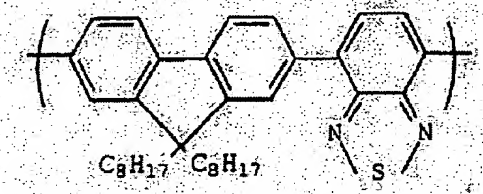
(XV)



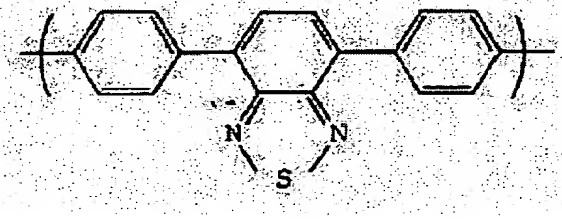
(XVI)



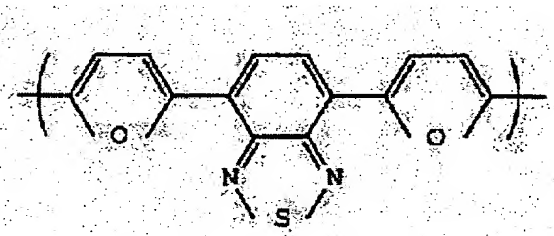
(XVII)



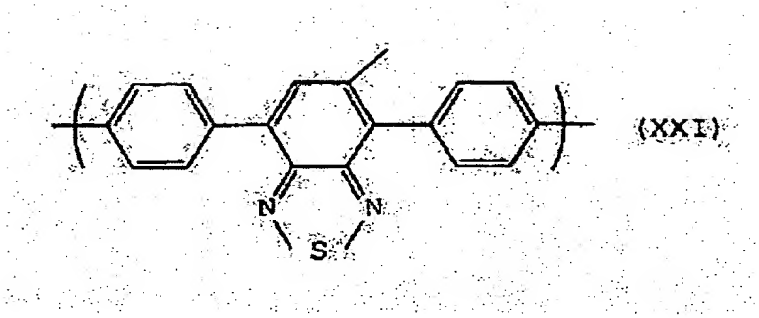
(XVIII)



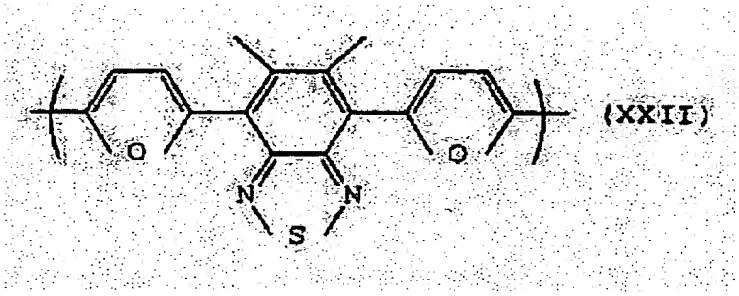
(XIX)



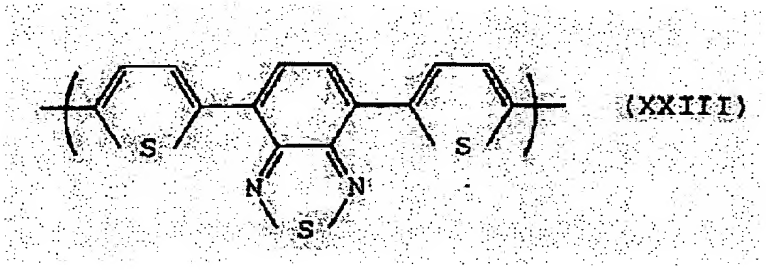
(XX)



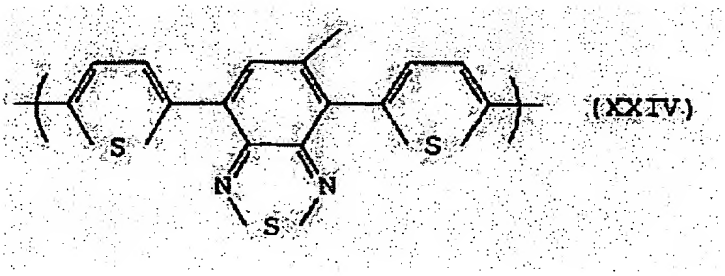
(XXI)



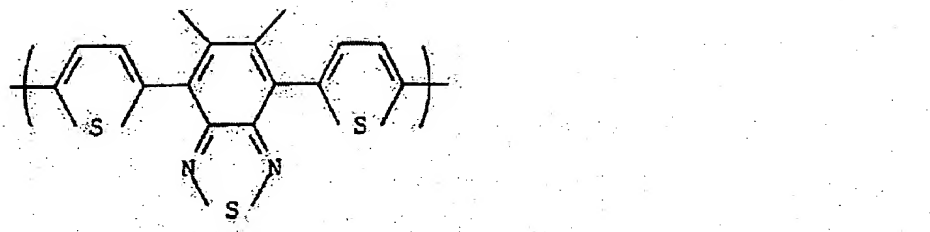
(XXII)



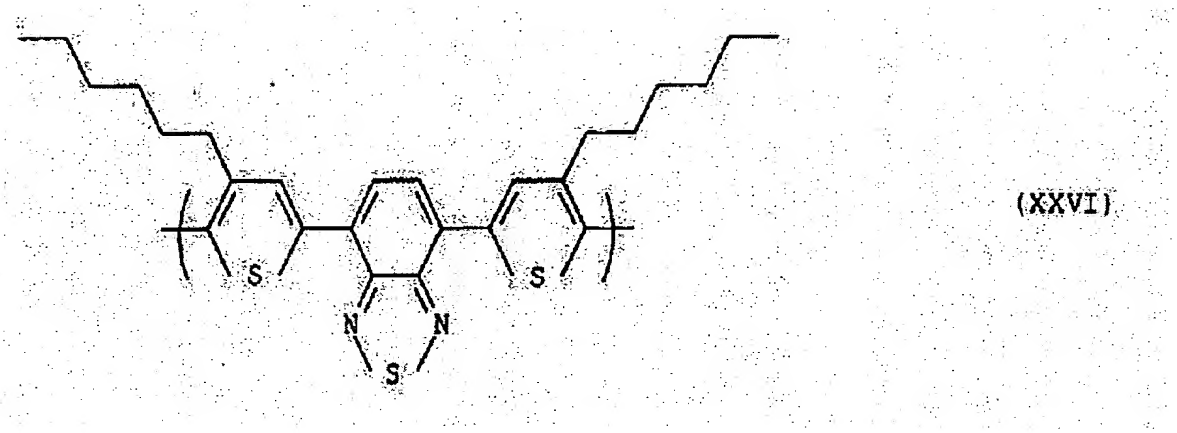
(XXIII)



(XXIV)



(XXV)



(XXVI)

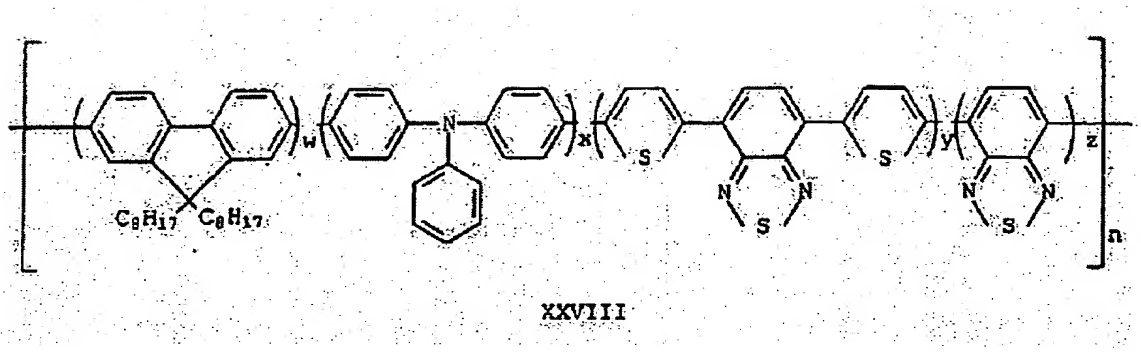
122. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising all three of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the formula:



XXVIII

wherein $w + x + y + z = 1$, $w \geq 0.5$, $0 < (x+y+z) \leq 0.5$ and $n \geq 2$.

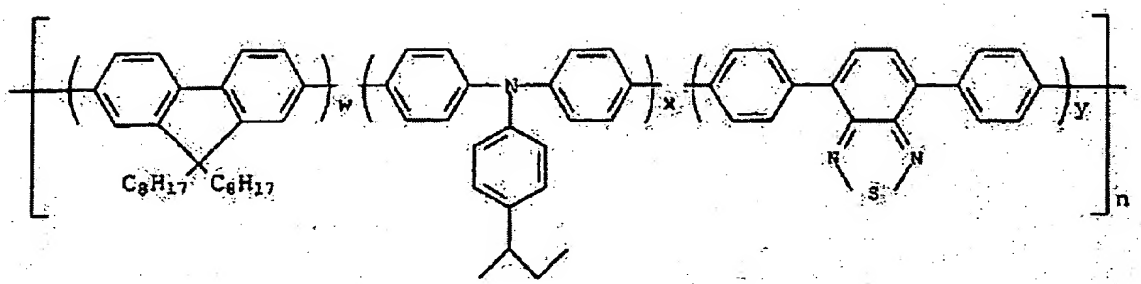
123. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising all three of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the formula:



(XXIX)

wherein w + x + y = 1, w ≥0.5, 0< (x+y) ≤0.5 and n ≥2.

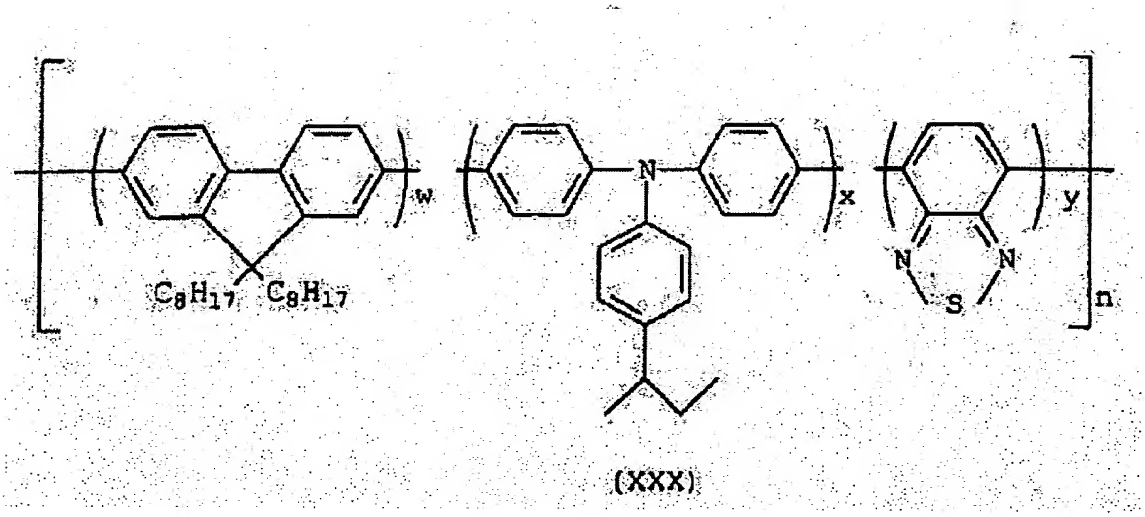
124. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising all three of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the formula:



(XXX)

wherein w + x + y = 1, w ≥0.5, 0< (x+y) ≤0 and n ≥2.

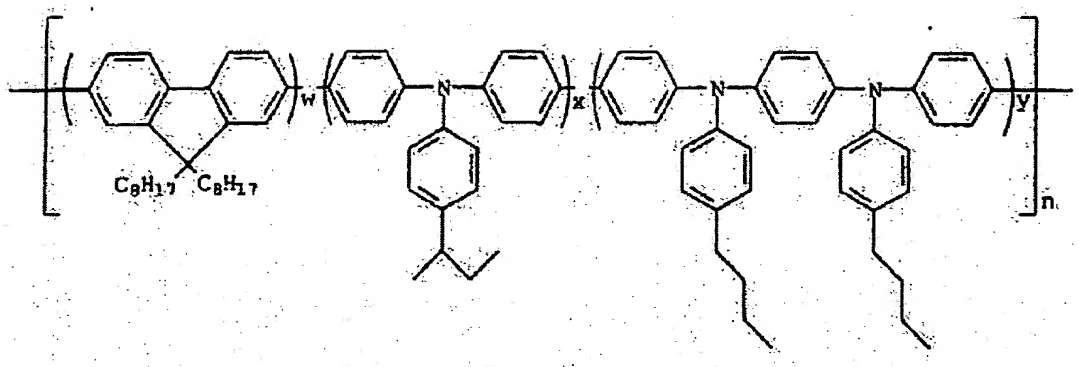
125. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising at least two of the following regions:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the formula:



(XXXI)

wherein w+ x + y = 1, w ≥0.5, 0<(x+y) ≤0.5 and n ≥2.

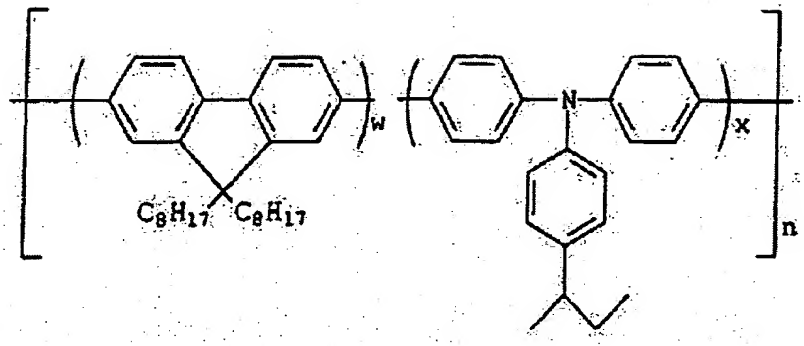
126. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising at least two of the following regions:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

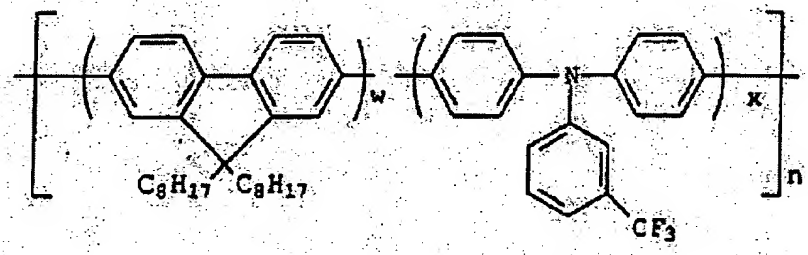
(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having one of the following formulas:



(XXXII)



(XXXIII)

wherein w + x = 1, w $\geq$0.5, 0<x $\leq$0.5 and n $\geq$2.

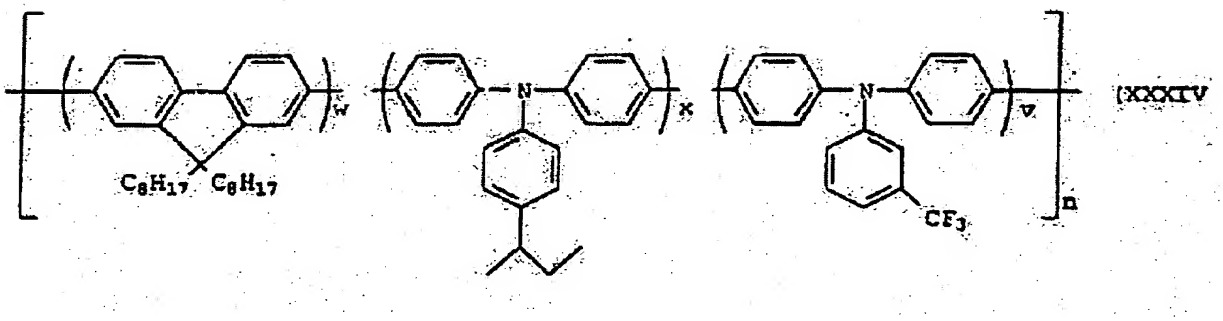
127. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising at least two of the following regions:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the following formula:



wherein w + x + v = 1, w $\geq$0.5, 0 < (x+v) $\leq$0.5 and n $\geq$2.

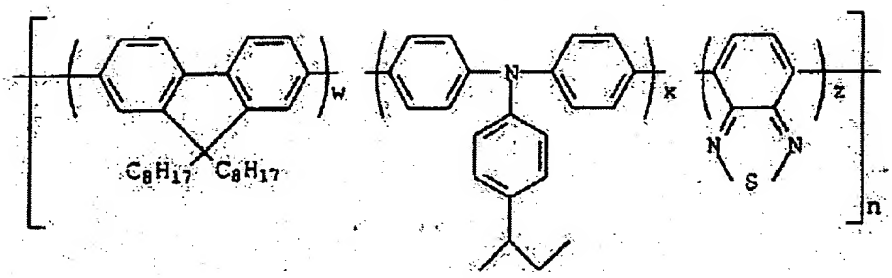
128. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising at least two of the following regions:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer and having the following formula:



(XXXV)

wherein w + x + z = 1, w $\geq$0.5, 0< (x+z) $\leq$0.5 and n $\geq$2.

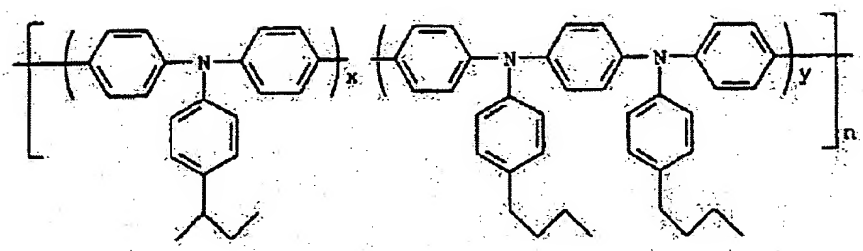
129. (new) An organic polymer having a plurality of regions along the length of the polymer backbone and comprising all three of the following:

(i) a first region for transporting negative charge carriers and having a first bandgap defined by a first LUMO level and

(ii) a second region for transporting positive charge carriers and having a second bandgap defined by a second LUMO level and a second HOMO level; and

(iii) a third region for accepting and combining positive and negative charge carriers to generate light and having a third bandgap defined by a third LUMO level and a third HOMO level,

wherein each region comprises one or more monomers and the quantity and arrangement of the monomers in the organic polymer is selected so that the first, second and third bandgaps are distinct from one another in the polymer having the formula:



(XXXVII)

wherein x + y = 1, x $\geq$0.5 and 0<y $\leq$0.5 and n $\geq$2.

130. (new) The polymer according to claim 129 which is blended with an electron transporting material.